DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-004248 Address: 333 Burma Road **Date Inspected:** 13-Oct-2008

City: Oakland, CA 94607

OSM Arrival Time: 1330 **Project Name:** SAS Superstructure **OSM Departure Time:** 2230 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes No Xu Le Feng **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component: OBG** Fabrication

Summary of Items Observed:

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

Heavy Bay 1

ZPMC had presented QA personnel with "The notification of witness inspection" document number 001186 that states ZPMC is going to perform magnetic particle inspections of skin A stiffener splice welds SSD1-SA164 D/F-8AB, and 12AB. The QA Inspector performed visual inspections of these welds and observed ZPMC has ground 4 mm deep gouges in the top edge of the welds. The QA Inspector showed ABF representative Mr. Yang Hiheng these grind areas and Mr. Hiheng informed the QA Inspector that ZPMC will perform weld repairs of these gouged areas to make the ends of the welds flush.

Heavy Bay 2

ABF informed the QA Inspector that ESD-1 Skin "D" stiffener to skin plate welds are ready for inspections and green tagging. The QA Inspector performed random visual inspections of ESD1 Skin "D" stiffener to skin plate welds and observed various weld locations that have areas in excess of 1 mm in depth below flush at the top of the complete joint penetration stiffener splice welds and some stiffener to skin plate welds have had the bottom toe ground and the weld profiles now have overlap conditions. The QA Inspector identified the outside weld of

WELDING INSPECTION REPORT

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stiffener D4 had 14 locations that need rework, including removal of weld spatter and cleaning of weld relief holes. Between stiffener D2 and D3 the QA Inspector identified eighteen weld locations that need rework and between stiffener D1 and D2 a total of five weld locations were identified that require rework. ZPMC QC/CWI Xu Le Feng was informed of these problems. Note: ZPMC is in the process of welding upper stiffener connection plates and the stiffener to skin plates below these plates could not be inspected due to welding and grinding debris. All weld relief holes require grinding to obtain smooth clean weld surfaces. QA Inspector Mr. George Goulet also performed visual inspections of various stiffener to skin plate welds.





Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco 13816942685, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer